

NATIONAL OCEAN SERVICE
NCCOS Questions to Answer for Research Review Team
February 11, 2004

Center for Coastal Fisheries and Habitat Research (CCFHR)

1) The most recent laboratory evaluation for the CCFHR was conducted as part of a comprehensive NOS internal program evaluation concluded in 1999. This document is a large notebook and is unavailable in pdf format. We suspect the substance of this report may be marginally relevant to the Research Review Team.

2) Please provide a brief history, and mission of your laboratory /center.

CCFHR is the second oldest Federal marine research laboratory in the country. CCFHR conducts research on coastal habitat requirements of early life stages of economically important fish, development of ecologically-based habitat restoration criteria, and effects of contaminants on living resources. The primary focus of research conducted ranges from the Chesapeake Bay to the Gulf of Mexico. The facility where the Center is located is jointly occupied with National Marine Fisheries Service staff for cooperative research efforts related to coastal fishes and protected species.

3) Please provide a listing of *major* customers of the laboratory /center, with a one sentence description of what is being done for them.

- NOAA/NOS/National Marine Sanctuaries--- CCFHR provides research products used in the management of NMS.
- Coastal Zone Management --- CCFHR provides restoration monitoring guidance, and models of ecosystem susceptibility to development.
- National Estuarine Research Reserves--- provide management related information to characterize and protect reserves.
- NOAA/NMFS---CCFHR provides recommendations for regional fisheries management councils with particular emphasis on stock assessments and population dynamics.

4) Please provide a short summary of research being conducted

- Sea Level Rise---Determine the ecological impacts of sea level rise on estuarine and coastal ocean ecosystems. Initially regional using developing preliminary model. Long term work.
- Invasive Species---Population dynamics, range expansion, and thermal tolerance of the invasive species, lionfish. Regional, entire east coast of U.S. Long term work.
- Pollution---Development of harmful algal bloom detection techniques from satellites to molecular technologies. Initially regional, east coast of the U.S., expanding to national. This research effort provides information and tools useful

globally. Long-term work.

- Extreme Natural Events --- Forecasting the impact and ecosystem recovery from hurricanes. Initially regional, east coast of the U.S., expanding to National, Long term work.
- Land and Resource Use--- Characterization and restoration of estuarine habitats lost due to human or natural impacts. Regional, National and International. Long term work.

5.) Please provide a listing of 3-5 major accomplishments in the last five years.

- Science-Based Restoration Monitoring of Coastal Habitats, Volume One: A Framework for Monitoring Plans Under the Estuaries and Clean Waters Act of 2000 (PL160-457).
- Development of molecular probes for the detection of harmful algal blooms.
- Successful demo micro-AUV technology for shallow water management related to monitoring.
- Creation of software which allows forecasting of wave exposure for coastal safety protection and restoration.
- Development and testing of injury recovery model for seagrass habitats for use in claims cases and litigation.

6.) Please provide a summary of legal mandates for the work in the laboratory/center.

- Clean Water Act
- Coral Reef Conservation Act
- National Marine Sanctuaries Act
- Executive Order 13089 --- Coral Reef Protection
- Estuary (Estuarine) Protection Act
- Estuary Restoration Act
- Magnuson-Stevens Fishery Conservation and Management Act